

REMARKS

Claims 36, 39-53, and 56-70 are pending in this application.

Claims 36, 39-53, and 56-68 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Vees U.S. patent 6,244,148 in view of newly cited Steinbock U.S. patent 4,622,730. Claims 69 and 70 have been rejected as being obvious over the combination of Vees and Steinbeck in further view of newly cited U.S. patent 4,770,078 to Gautier. These rejections are respectfully traversed.

Vees discloses a cutting device having a rotatably mounted anvil drum with an anvil surface. A rotatably mounted cutting tool with a cutter cooperates with the anvil surface. Steinbock teaches apparatus for mechanically stressing a bolt-type fastener. The Examiner has cited Steinbock as teaching an inner section, tension along an inner section, an end face, and bearings associated with the inner section, as set forth in Applicant's claim 36.

A careful review of Steinbock shows that this reference neither discloses nor remotely suggests the tool structure or the functionality of Applicant's claimed invention. Figure 4 of Steinbock, as described in column 5, line 65 to column 6, line 40, pertains to a roll assembly for use in a two-high rolling mill. Each roll assembly includes spaced-apart arbors 48 and 49 mounted in bearings (column 6, lines 9 to 12). A roll sleeve 59 is held between the arbors 48 and 49. The arbors are tightly clamped to the roll sleeve (column 6, line 33). A tension shaft 52 is provided to exert the clamping force. This tension shaft is fixed via a thread to the arbor 48 (column 6, lines 12 to 14). At the other end, a flange 55 is threaded to the shaft 52 (column 6, lines 16 to 19). A fastener assembly 40 is provided at the flange 55. A clamping force is provided via jack bolts of the fastener assembly 40. The clamping force holds the assembly of arbor 48, roll sleeve 59 and arbor 49 together via the tension shaft 52.

If, for the sake of the argument, the clamping force exerted by the fastener assembly 40 were considered to be a pressure force, then the arbor 49 (together with the roll sleeve 59) would have to be seen as an outer sleeve. Such a roll assembly rotates via bearings associated with the

outer sleeve (the arbors 48 and 49), and the assembly is not associated with any inner section. Moreover, the bearing is not really independent of the end face on which the force is applied, since this force holds the arbor 49 in the corresponding bearing. Accordingly, the structure of Steinbock is entirely different from Applicant's claimed structure.

Further, Applicant's claimed function of reducing a maximum oscillation amplitude transverse to the axis of rotation is not disclosed or remotely suggested by the cited prior art, and Applicant respectfully submits that this function would not be inherent in the Steinbock structure. In order to achieve such a functionality, the inner section has to have a major influence on the oscillation spectrum of the tool. In particular, the inner section must constitute a major part of the mass of the tool. In the Steinbock structure, however, the tension shaft 52 is only a minor part compared to the assembly arbor 48, roll sleeve 59 and arbor 49. Steinbock also fails to disclose the application of a pressure force essentially parallel to the axis of rotation, in order to reduce a maximum oscillation amplitude of the tool transverse to the axis of rotation during one of a cutting end embossing procedure.

Still further, if the clamping force in Steinbock were reduced, then the assembly of arbor 48, roll sleeve 59 and arbor 49 would fall apart. With the present invention, if the pressure force applied to provide tension along an inner section of the tool is reduced, only the oscillation spectrum of the tool would be influenced.

Another distinction between the Steinbock structure and Applicant's claimed invention is that in Steinbock, any force exerted on the arbors via the bearings can influence the roll sleeve 59. In the present invention, to the contrary, the outer sleeve (with the cutting or embossing structure) is independent of the bearings. And, Steinbock does not disclose or remotely suggest that the roll assembly can be used in conjunction with a cutting tool or an embossing tool.

In view of the above, Applicant respectfully submits that the presently pending claims are clearly patentable over the prior art cited by the Examiner. Further remarks regarding the asserted relationship between Applicants' claims and the prior art are not deemed necessary, in

view of the foregoing discussion. Applicants' silence as to any of the Examiner's comments is not indicative of an acquiescence to the stated grounds of rejection.

Reconsideration and allowance of each of the claims is respectfully requested. If there are any remaining issues that need to be addressed in order to place this application into condition for allowance, the Examiner is requested to telephone Applicant's undersigned attorney.

Respectfully submitted,



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